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opening a plurality of via holes through the first and second passivation layers;  
depositing a layer of conductive material;  
depositing a first doped a-Si layer;  
patterning to form the collection electrodes;  
depositing a continuous layer of i a-Si;  
depositing a continuous second layer of doped a-Si;  
depositing and patterning an upper conductive layer.

12. (New) The high fill factor image array of claim 11, wherein the first passivation layer comprises at least one of silicon oxynitride, BCB, or a polyamide.
13. (New) The high fill factor image array of claim 11, wherein the second passivation layer is an oxide.
14. (New) The high fill factor image array of claim 11, wherein the second has a thickness of about 1000 Å.
15. (New) The high fill factor image array of claim 11, wherein the thickness of the second passivation layer is less than the thickness of the first passivation layer.

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